

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

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**TRANSMITTAL LETTER TO THE UNITED STATES  
DESIGNATED/ELECTED OFFICE (DO/EO/US)  
CONCERNING A FILING UNDER 35 U.S.C. 371**

**10/070166**

INTERNATIONAL APPLICATION NO.  
PCT/DE00/03007

INTERNATIONAL FILING DATE  
1 September 2000

PRIORITY DATE CLAIMED  
3 September 1999

TITLE OF INVENTION  
METHOD AND SYSTEM FOR DISPLAYING SITE-SPECIFIC BOOKMARKS ON A COMPUTER

APPLICANT(S) FOR DO/EO/US  
Vladimir MINENKO et al.

Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:

1. ☒ This is a FIRST submission of items concerning a filing under 35 U.S.C. 371.
2. ☒ This is an express request to immediately begin national examination procedures (35 U.S.C. 371(f)).
3. ☒ The US has been elected by the expiration of 19 months from the priority date (PCT Article 31).
4. ☒ A copy of the International Application as filed (35 U.S.C. 371(c)(2))
  - a. ☒ is transmitted herewith (required only if not transmitted by the International Bureau).
  - b. ☐ has been transmitted by the International Bureau.
  - c. ☐ is not required, as the application was filed in the United States Receiving Office (RO/US).
5. ☒ A translation of the International Application into English (35 U.S.C. 371(c)(2)).
6. ☐ Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3))
  - a. ☐ are transmitted herewith (required only if not transmitted by the International Bureau).
  - b. ☐ have been transmitted by the International Bureau.
  - c. ☐ is not required, as the application was filed in the United States Receiving Office (RO/US).
7. ☐ A translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).
8. ☒ An oath or declaration of the inventor (35 U.S.C. 371(c)(4)).
9. ☒ A translation of the Annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).

Items 10-15 below concern document(s) or information included:

10. ☒ An Information Disclosure Statement Under 37 CFR 1.97 and 1.98.
11. ☒ An assignment document for recording.  
Please mail the recorded assignment document to:
  - a. ☒ the person whose signature, name & address appears at the bottom of this document.
  - b. ☐ the following:
12. ☒ A preliminary amendment.
13. ☒ A substitute specification
14. ☐ A change of power of attorney and/or address letter.
15. ☒ Other items or information: First page of published International Application; International Search Report; and International Preliminary Examination Report.

☒ The U.S. National Fee (35 U.S.C. 371(c)(1)) and other fees as follows:

CLAIMS	(1) FOR	(2) NUMBER FILED	(3) NUMBER EXTRA	(4) RATE	(5) CALCULATIONS
TOTAL CLAIMS		17 -20=	0	x \$ 18.00	0.00
INDEPENDENT CLAIMS		2 -3=	0	x \$ 84.00	0.00
MULTIPLE DEPENDENT CLAIM(S) (if applicable)				+\$280.00	0.00
BASIC NATIONAL FEE (37 CFR 1.492(a)(1)-(4):					890.00
<input type="checkbox"/> Neither international preliminary examination fee (37 CFR 1.482) nor international search fee (37 CFR 1.445(a)(2)) paid to USPTO .....\$1,040 <input checked="" type="checkbox"/> International preliminary examination fee (37 C.F.R. 1.482) not paid to USPTO but International Search Report prepared by the EPO or JPO.....\$ 890 <input type="checkbox"/> International preliminary examination fee (37 C.F.R. 1.482) not paid to USPTO but international search fee (37 C.F.R. 1.445(a)(2)) paid to USPTO...\$ 740 <input type="checkbox"/> International preliminary examination fee paid to USPTO (37 CFR 1.482) but all claims did not satisfy provision of PCT Article 33(1)-(4).....\$ 710 <input type="checkbox"/> International preliminary examination fee paid to USPTO (37 CFR 1.482) and all claims satisfied provisions of PCT Article 33(2) to (4) .....\$ 100					
Surcharge of \$130 for furnishing the National fee or oath or declaration later than <input type="checkbox"/> 20 <input type="checkbox"/> 30 mos. from the earliest claimed priority date (37 CFR 1.482(e)).					
TOTAL OF ABOVE CALCULATIONS					
Reduction by 1/2 for filing by small entity, if applicable. Affidavit must be filed also. (Note 37 CFR 1.9, 1.27, 1.28.)					
SUBTOTAL					890.00
Processing fee of \$130 for furnishing the English Translation later than <input type="checkbox"/> 20 <input type="checkbox"/> 30 mos. from the earliest claimed priority date (37 CFR 1.482(f)).					
TOTAL NATIONAL FEE					890.00
Fee for recording the enclosed assignment (37 CFR 1.21(h)).					+40.00
TOTAL FEES ENCLOSED					930.00

- a. ☒ A check in the amount of \$930.00 to cover the above fees is enclosed.  
 b. ☐ Please charge my Deposit Account No. 19-3935 in the Amount of \$ to cover the above fees. A duplicate copy of this sheet is enclosed.  
 c. ☒ The Commissioner is hereby authorized to charge any additional fees which may be required, credit any overpayment to Deposit Account No. 19-3935. A duplicate copy of this sheet is enclosed.



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PATENT TRADEMARK OFFICE

SUBMITTED BY: STAAS & HALSEY LLP

Type Name	Mark J. Henry	Reg. No.	36,162
Signature	<i>Mark J. Henry</i>	Date	March 4, 2002

10/070166

JC19 Rec'd PCT/PTO 04 MAR 2002  
Inventors: Vladimir MINENKO et al.

Docket No.: 1454.1221

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re the Application of:

U.S. National Phase of: PCT/DE00/03007

Vladimir MINENKO et al.

Serial No.

Group Art Unit: To be assigned

Confirmation No.

Filed:

Examiner: To be assigned

For: METHOD AND SYSTEM FOR DISPLAYING SITE-SPECIFIC BOOKMARKS ON A  
COMPUTER

**PRELIMINARY AMENDMENT**

Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

Before examination of the above-identified application, please amend the application as follows:

**IN THE ABSTRACT:**

Please REPLACE the Abstract originally filed with the enclosed Substitute Abstract attached hereto.

**IN THE SPECIFICATION:**

Please REPLACE the specification originally filed with the enclosed Substitute Specification.

**IN THE CLAIMS:**

Please CANCEL claims 1-10.

Please ADD new claims 11-29 in accordance with the following:

11. A method for displaying location-dependent bookmarks on a computer, comprising:

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- a) ascertaining a location of the computer;
- b) ascertaining bookmarks corresponding to the location and displaying the bookmarks;
- c) storing the bookmarks with location information.

12. The method as claimed in claim 11, wherein the bookmarks are used to access data in a network.

13. The method as claimed in claim 12, wherein the network is the Internet.

14. The method as claimed in claim 11, wherein the computer is a mobile computer.

15. The method as claimed in claim 11, wherein the location of the computer is ascertained using a GPS sensor.

16. The method as claimed in claim 11, wherein bookmarks corresponding to the location are determined by a prescribed distance between the information linked to the bookmark and the location.

17. The method as claimed in claim 11, wherein resources of the computer are moved to a static system.

18. The method as claimed in claim 11, wherein time information is additionally provided which is used to filter the bookmarks.

19. The method as claimed in claim 18, wherein the bookmarks are stored .

20. (NEW) The method as claimed in claim 19, wherein the bookmarks are stored automatically.

21. (NEW) The method as claimed in claim 19, wherein the bookmarks are stored manually.

22. (NEW) The method as claimed in claim 13, wherein the computer is a mobile

computer.

23. (NEW) The method as claimed in claim 22, wherein the location of the computer is ascertained using a GPS sensor.

24. (NEW) The method as claimed in claim 23, wherein bookmarks corresponding to the location are determined by a prescribed distance between the information linked to the bookmark and the location.

25. (NEW) The method as claimed in claim 24, wherein resources of the computer are moved to a static system.

26. (NEW) The method as claimed in claim 25, wherein time information is additionally provided which is used to filter the bookmarks.

27. (NEW) The method as claimed in claim 26, wherein the bookmarks are stored.

28. (NEW) A system for displaying location-dependent bookmarks, comprising:

- a) a locator to ascertain a location of the computer; and
- b) a unit to ascertain bookmarks corresponding to the location of the computer and display the bookmarks.

**REMARKS**

This Preliminary Amendment is submitted to improve the form of the specification as originally-filed. A substitute specification and marked-up copy of the original specification are enclosed. No new matter is added to these documents.

It is respectfully requested that this Preliminary Amendment be entered in the above-referenced application.

If any further fees are required in connection with the filing of this Preliminary Amendment, please charge same to our Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

Date: March 4, 2002

By: Mark J. Henry  
Mark J. Henry  
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## **SUBSTITUTE ABSTRACT**

A method for displaying location-dependent bookmarks ascertains a location for the computer. For this location, corresponding bookmarks are determined and displayed on the computer.

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## **SUBSTITUTE SPECIFICATION**

### **TITLE OF THE INVENTION**

**METHOD AND SYSTEM FOR DISPLAYING SITE SPECIFIC BOOKMARKS ON A COMPUTER**

### **CROSS REFERENCE TO RELATED APPLICATIONS**

**[0001]** This application is based on and hereby claims priority to PCT Application No. PCT/DE00/03007 filed on September 1, 2000 and German Application No. 19942173.0 filed on September 3, 1999, the contents of which are hereby incorporated by reference.

### **BACKGROUND OF THE INVENTION**

**[0002]** The invention relates to a method and to a system for displaying location-dependent bookmarks on a computer.

**[0003]** When operating a computer, for example a personal computer, in a network group, for example the Internet, there are a multiplicity of addresses which can be accessed by the computer in the network group. In this context, a user uses these addresses purposefully, in order to satisfy particular information requirements. For better clarity, the addresses are stored as bookmarks in lists, with the lists preferably being able to be sorted according to subject in line with the user's preferences. When "browsers" are used, there are directories of bookmarks which can be grouped and sorted by the user on a suitable basis. In addition, there are also programs which merely provide support for managing the multiplicity of bookmarks. If the user has access to a fully functional computer, e.g. a personal computer, then it is a simple matter for him to find the bookmarks which he needs quickly on a commercially available screen. He can normally use the large screen and the many advance sorting options to obtain a good overview of the bookmarks, and can therefore quickly find the bookmark which he needs in a particular situation.

**[0004]** The situation is fundamentally different with a portable computer (e.g. with a Personal Digital Assistant = PDA): such an appliance normally has just a small display unit (display) which cannot show the same quantity of information as a conventional screen. In particular, the portable computer are usually used on a mobile basis, in which case, in particular, there is little time available for bookmarks.

**[0005]** International patent application WO 97/07467 discloses a computer system for identifying local resources in which a client computer sends location information to servers, and this server then zoom or move map information on the basis of the location information, and

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**[0006]** International patent application WO 98/59506 discloses improvements in or relating to the distribution of information which involve establishing a current position for an enquirer via the telephone system, for example using the cell association with a mobile radio cell, and ascertaining from a database an http address for a local information server which then provides the enquirer with local information.

**[0008]** The object may be achieved by specifying a method for displaying location-dependent bookmarks on a computer, in which a location is ascertained for the computer. For this location, corresponding bookmarks are ascertained and are displayed on the computer.

**[0010]** One refinement relates to the location of the computer being ascertained using a global positioning system (GPS). Alternatively, the location can be determined over a mobile radio network, e.g. GSM, or over a wave LAN.

**[0012]** Another refinement is that resources of the computer are removed to a static system. This is suitable as a preference for small mobile appliances whose computation power and computation capacity are greatly restricted. For complex data access operations and search queries, it is possible to use the static system, which transmits the results of the storage or search query to the mobile system, in particular via a radio interface.

**[0014]** Another refinement is that resources of the computer are removed to a static system. This is suitable as a preference for small mobile appliances whose computation power and

computation capacity are greatly restricted. For complex data access operations and search queries, it is possible to use the static system, which transmits the results of the storage or search query to the mobile system, in particular via a radio interface.

**[0015]** In this context, it should be noted that the (mobile) computer can communicate with the network using, in particular, a radio interface e.g. via DECT or GSM.

**[0016]** Another refinement is that bookmarks are stored with location information. This storage can be effected both in the (mobile) computer itself or in the network system. In the case of storage in the network group, the (mobile) computer uses a memory location which it interrogates preferably via the air interface, or triggers filter functions via the air interface and displays the result, which is in turn transmitted from the network to the computer.

**[0017]** In this context, it should be pointed out that the network preferably comprises a group of computers in which the plurality of computers interchange data with one another. In particular, in the case of storage and access to data in the network group, reference can be made to a (network) computer, by way of representation. An example of a large network group (network) is the Internet.

**[0018]** In one development, time information is additionally provided which is used to filter the bookmarks. This time information may, in particular, be suitable for automatically storing the last addresses visited and for offering them to the user when required. Using the combination of time information and location information, the user can be offered the last addresses visited, on the basis of the respective location. This allows fast and very efficient access to bookmarks which, on the basis of the respective location, provide the user with information which is significant to him.

**[0019]** In general, an advantage of the location-related bookmarks is that the user does not need to search for the appropriate addresses on the (mobile) computer, but rather is offered the correct ones quickly. The related access to the data associated with the bookmarks increases the acceptance when handling the computer to the same extent as the efficiency is increased.

**[0020]** One example is a travel timetable query, which is very highly dependent on the location of the user. A travel timetable query can thus be made quickly and efficiently from a bus stop, for example. For this bus stop, the departure times and routes can be displayed and hence can inform the user quickly and easily about the time of arrival of the next bus and the rest of the

route.

[0021] It should also be noted that the location information can be subdivided into cells of greater or lesser size. Thus, in a GSM radio network, for example, it is possible to obtain and provide location information accurate to the kilometer. A global positioning system can be used to request and provide location information accurate to several 10m. The accuracy depends on the respective field of application and on the radio network used.

[0022] The bookmarks provided with the time information can be stored automatically or manually. Automatic storage works upon selection of the address concerned, i.e. the address visited is stored and provided with a time stamp and a location stamp. Accordingly, an address can also be stored explicitly.

[0023] One refinement is that a bookmark is linked to a functionality, e.g. "bus timetable". A content associated with this bookmark is determined dynamically, on the basis of the location and possibly the current time. One option in the "bus timetable" example would be the nearest stop's timetable with the next departure times and arrival times.

[0024] The object may be also achieved by specifying a system for displaying location-dependent bookmarks, in which a processor unit is provided which is set up such that a location can be ascertained for the computer. For the location, corresponding bookmarks can be ascertained and displayed.

[0025] This system is particularly suitable for carrying out the method or one of its developments explained above.

#### BRIEF DESCRIPTION OF THE DRAWINGS

[0026] These and other objects and advantages of the present invention will become more apparent and more readily appreciated from the following description of the preferred embodiments, taken in conjunction with the accompanying drawings of which:

Fig. 1 shows a sketch illustrating a scenario for the mobile use of location-dependent services;

Fig. 2 shows a sketch illustrating a scenario for the display of location-dependent bookmarks on a computer, where the location information is ascertained by the computer;

Fig. 3 shows a sketch illustrating a scenario for the display of location-dependent

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bookmarks on a computer, where the location information is ascertained by the network;

Fig. 4 shows a sketch illustrating a way of extending the above scenarios by time information;

Fig. 5 shows a sketch illustrating a scenario in which fundamental functions of the computer are removed to the network;

Fig. 6 shows a sketch illustrating two different methods for creating bookmarks;

Fig. 7 shows a processor unit (computer).

#### DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

**[0027]** Reference will now be made in detail to the preferred embodiments of the present invention, examples of which are illustrated in the accompanying drawings, wherein like reference numerals refer to like elements throughout.

**[0028]** Fig. 1 shows a sketch illustrating a scenario for the mobile use of location-dependent services. A mobile computer 101, e.g. a Personal Digital Assistant (PDA), is operated by a user 109 in a mobile radio network, indicated by the radio interfaces 104 and 108. In this case, the mobile computer 101 accesses a network, in particular a network group 110, for example the Internet. In the "Internet as network group" scenario, it is customary for a subscriber, in this case the mobile computer 101, to access a service provider (Provider) on behalf of the network group 110. In this case, the service provider 110 responds, in particular, to the query 104 from the mobile computer 101 and transmits an appropriate response 108 back to the mobile computer 101.

**[0029]** In Fig. 1, the location of the computer 101 is ascertained (in block 105, 106) and, on the basis of this location, particular services 107 are offered.

**[0030]** Information which is particularly dependent on the location of the computer 101 may be: travel information, emergency services (pharmacies, doctors), tourist attractions, hire cars, entertainment (cinema, theatre), consumer goods (department stores, shopping facilities).

**[0031]** Fig. 2 shows a sketch illustrating a scenario for the display of location-dependent bookmarks on a computer, where the location information is ascertained by the computer. The computer 201, in particular in the form of a mobile computer, ascertains its location 202 (location information) on the basis of data from a global positioning system (GPS). On the basis of its location 202, a selection 204 is made from the multiplicity of bookmarks 203 stored on a local

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basis, and hence the bookmarks 205 relevant to the location of the mobile computer 201 are displayed. Preferably, the bookmarks offered are those whose distance from the location 202 is below a prescribed threshold value. In addition, bookmarks which are independent of the location can be offered (e.g. bookmarks relating to world news).

**[0032]** The user 209 can select one of these relevant bookmarks 205. A communications interface, in this case a GSM channel 206, is used to transmit the address to a service provider 210, where a query 207 is started. This query 207 produces a result which is again transmitted via the GSM channel 208 to the user 209, in particular to the mobile computer 201.

**[0033]** Fig. 3 shows a sketch illustrating a scenario for the display of location-dependent bookmarks on a computer, where the location information is ascertained by the network. Again, a mobile computer 301 is provided which identifies itself to a service provider 315 using an identifier 302 which is unique to it. The service provider 315 issues a query and ascertains the position of the mobile computer 301 (see blocks 304 and 305). The GSM network, in which it is possible to ascertain the position of a subscriber, is suitable for this purpose. The full duplex radio interface is identified in Fig. 3 by the communication arrows 303, 308 and 311. The position data 305 ascertained by the service provider 315 is transmitted to the mobile computer 301. There, on the basis of the location information 305, a selection 307 is made from a multiplicity of bookmarks 306 stored on a local basis on the mobile computer 301. This results in a selection of bookmarks 309 which are relevant to the location and which the user 310 can use to retrieve particular information (indicated by the arrow 314). This query 314 is transmitted to the service provider 315 (transmission arrow 311) and is processed there (see block 312). The result 313 of the query 314 or 311 is transmitted back to the mobile computer 301 and is displayed to the user 310.

**[0034]** Fig. 4 shows a sketch illustrating an extension of the above scenarios by time information. On the basis of Fig. 2 or Fig. 3, a selection 402 from a multiplicity of bookmarks 401 is made on the basis of the location information 403, of time information 404 and/or of a timetable 405. The result of the selection is bookmarks 406 matching the selection filter. The selection on the basis of the location information 403 delivers bookmarks matching the location of the mobile computer. In addition, these bookmarks are filtered with regard to their time stamp. By way of example, this may be a filter function of the following type: "The same bookmarks at the same location at the same time".

[0035] In addition, time planning can be effected in connection with the location, so that an appointment reminder 405 is issued automatically when paying a visit to the noted place. This appointment reminder 405 relates, in particular, to the query for a particular address in the network group. By way of example: "Every Monday, when visiting the XY area, start query with regional press service."

[0036] The filters 403 to 405 can be combined in any combination (and/or) with one another.

[0037] Fig. 5 shows a sketch illustrating a scenario in which fundamental functions of the computer 501 are removed to the network 502. With a very low power mobile computer 501, it is advantageous to remove the computation- and memory-intensive operations to the network 502, which has plenty of resources.

[0038] The mobile computer 501 transmits its identifier 503 to the network 502. There, the position of the mobile computer 501 is firstly ascertained (see block 504), and secondly the bookmarks 505 stored by the network 502 are filtered in the manner described above (filter according to timetable 506, time 507 and position 508). The selection 509 delivers some of the bookmarks 505 back to the mobile computer 501. The user 512 selects a bookmark 511, and a query in the network 502 is started (block 510). The result is transmitted to the mobile computer 501 and hence to the user 512.

[0039] In this scenario, it is particularly advantageous for the mobile computer 501, optimized in terms of weight and user friendliness, to remove functions to the network 502. In the network 502, the mobile computer 501 is given an area 513 (domain) created for it which comprises all its bookmarks 505 and the timetable 506 which is characteristic of it. Preferably, other basic functionalities relating to additional storage of other bookmarks in the network 502 and to editing of these bookmarks are provided in the mobile computer 501.

[0040] Fig. 6 shows a sketch illustrating two different methods for creating bookmarks.

[0041] If the user is able to select information 601, that is to say is able to visit its associated address, this is done by explicit selection, in conventional network browsers by clicking on a highlighted destination address. This specific selection 602 causes, in particular, the time 604 at which the information was requested and the location 603, that is to say from where the information was requested, also to be logged. These two items of information – location 603 and time of the query 604 -are stored together 605 with the destination address of the

information 601. This is equivalent to automatic storage of bookmarks.

**[0042]** One alternative is explicit storage of bookmarks 607. In this case, for the bookmark which is to be stored, the location information 608, that is to say the location of the mobile computer, is requested and both the address and the location address are stored together 609 in the bookmarks 610.

**[0043]** Fig. 7 shows a processor unit PRZE. The processor unit PRZE comprises a processor CPU, a memory MEM and an input/output interface IOS which is used in various ways via an interface IFC: a graphics interface is used to visualize an output on a monitor MON and/or to output it on a printer PRT. Input is effected using a mouse MAS or a keyboard TAST. The processor unit PRZE also has a data bus BUS ensuring connection of a memory MEM, the processor CPU and the input/output interface IOS. Additional components can also be connected to the data bus BUS, e.g. an additional memory, data store (hard disk) or scanner.

**[0044]** The invention has been described in detail with particular reference to preferred embodiments thereof and examples, but it will be understood that variations and modifications can be effected within the spirit and scope of the invention.

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## MARKED-UP TRANSLATION OF INTERNATIONAL APPLICATION

[Description] TITLE OF THE INVENTION

METHOD AND [ARRANGEMENT] SYSTEM FOR DISPLAYING [LOCATION-DEPENDENT] SITE SPECIFIC BOOKMARKS ON A COMPUTER

### CROSS REFERENCE TO RELATED APPLICATIONS

**[0001]** This application is based on and hereby claims priority to PCT Application No. PCT/DE00/03007 filed on September 1, 2000 and German Application No. 19942173.0 filed on September 3, 1999, the contents of which are hereby incorporated by reference.

### BACKGROUND OF THE INVENTION

**[0002]** The invention relates to a method and to [an arrangement] a system for displaying location-dependent bookmarks on a computer.

**[0003]** When operating a computer, for example a personal computer, in a network group, for example the Internet, there are a multiplicity of addresses which can be accessed by the computer in the network group. In this context, a user uses these addresses purposefully, in order to satisfy particular information requirements. For better clarity, the addresses are stored as bookmarks in lists, with the lists preferably being able to be sorted according to subject in line with the user's preferences. When "browsers" are used, there are directories of bookmarks which can be grouped and sorted by the user on a suitable basis. In addition, there are also programs which merely provide support for managing the multiplicity of bookmarks. If the user has access to a fully functional computer, e.g. a personal computer, then it is a simple matter for him to find the bookmarks which he needs quickly on a commercially available screen. He can normally use the large screen and the many advance sorting options to obtain a good overview of the bookmarks, and can therefore quickly find the bookmark which he needs in a particular situation.

**[0004]** The situation is fundamentally different with a portable computer (e.g. with a Personal Digital Assistant = PDA): such an appliance normally has just a small display unit (display) which cannot show the same quantity of information as a conventional screen. In particular, the portable computer are usually used on a mobile basis, in which case, in particular, there is little time available for bookmarks.

**[0005]** International patent application WO 97/07467 discloses a computer system for identifying local resources in which a client computer sends location information to servers, and

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this server then zoom or move map information on the basis of the location information, and associated information relating to particular points on the map, for example in the form of hypertext, is adjusted as appropriate in the position shown.

[0006] International patent application WO 98/59506 discloses improvements in or relating to the distribution of information which involve establishing a current position for an enquirer via the telephone system, for example using the cell association with a mobile radio cell, and ascertaining from a database an http address for a local information server which then provides the enquirer with local information.

[0007] [The]One object of the invention is to display bookmarks on a computer, with this display being geared, in particular, to the location of the computer. [This object is achieved on the basis of the features of the independent patent claims. Developments of the invention can be found in the dependent claims.]

[0008] The object [is]may be achieved by specifying a method for displaying location-dependent bookmarks on a computer, in which a location is ascertained for the computer. For this location, corresponding bookmarks are ascertained and are displayed on the computer.

[0009] In one development, the bookmarks are used to access data in a network, in particular the Internet. In another development, the computer is a mobile computer.

[0010] One refinement [consists in]relates to the location of the computer being ascertained using a global positioning system (GPS). Alternatively, the location can be determined over a mobile radio network, e.g. GSM, or over a wave LAN.

[0011] One particular refinement is that a bookmark corresponding to the location of the computer is determined as a result of the information linked to the bookmark being at a prescribed maximum distance from the location of the computer.

[0012] Another refinement is that resources of the computer are removed to a static system. This is suitable as a preference for small mobile appliances whose computation power and computation capacity are greatly restricted. For complex data access operations and search queries, it is possible to use the static system, which transmits the results of the storage or search query to the mobile system, in particular via a radio interface.

[0013] In this context, it should be noted that the (mobile) computer can communicate with the

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network using, in particular, a radio interface e.g. via DECT or GSM.

[0014] Another refinement is that resources of the computer are removed to a static system. This is suitable as a preference for small mobile appliances whose computation power and computation capacity are greatly restricted. For complex data access operations and search queries, it is possible to use the static system, which transmits the results of the storage or search query to the mobile system, in particular via a radio interface.

[0015] In this context, it should be noted that the (mobile) computer can communicate with the network using, in particular, a radio interface e.g. via DECT or GSM.

[0016] Another refinement is that bookmarks are stored with location information. This storage can be effected both in the (mobile) computer itself or in the network [arrangement]system. In the case of storage in the network group, the (mobile) computer uses a memory location which it interrogates preferably via the air interface, or triggers filter functions via the air interface and displays the result, which is in turn transmitted from the network to the computer.

[0017] In this context, it should be pointed out that the network preferably comprises a group of computers in which the plurality of computers interchange data with one another. In particular, in the case of storage and access to data in the network group, reference can be made to a (network) computer, by way of representation. An example of a large network group (network) is the Internet.

[0018] In one development, time information is additionally provided which is used to filter the bookmarks. This time information may, in particular, be suitable for automatically storing the last addresses visited and for offering them to the user when required. Using the combination of time information and location information, the user can be offered the last addresses visited, on the basis of the respective location. This allows fast and very efficient access to bookmarks which, on the basis of the respective location, provide the user with information which is significant to him.

[0019] In general, an advantage of the location-related bookmarks is that the user does not need to search for the appropriate addresses on the (mobile) computer, but rather is offered the correct ones quickly. The related access to the data associated with the bookmarks increases the acceptance when handling the computer to the same extent as the efficiency is increased.

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[0020] One example is a travel timetable query, which is very highly dependent on the location of the user. A travel timetable query can thus be made quickly and efficiently from a bus stop, for example. For this bus stop, the departure times and routes can be displayed and hence can inform the user quickly and easily about the time of arrival of the next bus and the rest of the route.

[0021] It should also be noted that the location information can be subdivided into cells of greater or lesser size. Thus, in a GSM radio network, for example, it is possible to obtain and provide location information accurate to the kilometer. A global positioning system can be used to request and provide location information accurate to several 10m. The accuracy depends on the respective field of application and on the radio network used.

[0022] The bookmarks provided with the time information can be stored automatically or manually. Automatic storage works upon selection of the address concerned, i.e. the address visited is stored and provided with a time stamp and a location stamp. Accordingly, an address can also be stored explicitly.

[0023] One refinement is that a bookmark is linked to a functionality, e.g. "bus timetable". A content associated with this bookmark is determined dynamically, on the basis of the location and possibly the current time. One option in the "bus timetable" example would be the nearest stop's timetable with the next departure times and arrival times.

[0024] The object [is] may be also achieved by specifying [an arrangement] a system for displaying location-dependent bookmarks, in which a processor unit is provided which is set up such that a location can be ascertained for the computer. For the location, corresponding bookmarks can be ascertained and displayed.

[0025] This [arrangement] system is particularly suitable for carrying out the [inventive] method or one of its developments explained above.

#### BRIEF DESCRIPTION OF THE DRAWINGS

[0026] [Exemplary embodiments of the invention are explained and illustrated below with reference to the drawing, in which] These and other objects and advantages of the present invention will become more apparent and more readily appreciated from the following description of the preferred embodiments, taken in conjunction with the accompanying drawings

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of which:

[figure]Fig. 1 shows a sketch illustrating a scenario for the mobile use of location-dependent services;

[figure]Fig. 2 shows a sketch illustrating a scenario for the display of location-dependent bookmarks on a computer, where the location information is ascertained by the computer;

[figure]Fig. 3 shows a sketch illustrating a scenario for the display of location-dependent bookmarks on a computer, where the location information is ascertained by the network;

[figure]Fig. 4 shows a sketch illustrating a way of extending the above scenarios by time information;

[figure]Fig. 5 shows a sketch illustrating a scenario in which fundamental functions of the computer are removed to the network;

[figure]Fig. 6 shows a sketch illustrating two different methods for creating bookmarks;

[figure]Fig. 7 shows a processor unit (computer).

#### DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

[0027] Reference will now be made in detail to the preferred embodiments of the present invention, examples of which are illustrated in the accompanying drawings, wherein like reference numerals refer to like elements throughout.

**[0028]** [Figure]Fig. 1 shows a sketch illustrating a scenario for the mobile use of location-dependent services. A mobile computer 101, e.g. a Personal Digital Assistant (PDA), is operated by a user 109 in a mobile radio network, indicated by the radio interfaces 104 and 108. In this case, the mobile computer 101 accesses a network, in particular a network group 110, for example the Internet. In the "Internet as network group" scenario, it is customary for a subscriber, in this case the mobile computer 101, to access a service provider (Provider) on behalf of the network group 110. In this case, the service provider 110 responds, in particular, to the query 104 from the mobile computer 101 and transmits an appropriate response 108 back to the mobile computer 101.

**[0029]** In [figure]Fig. 1, the location of the computer 101 is ascertained (in block 105, 106) and, on the basis of this location, particular services 107 are offered.

[0030] Information which is particularly dependent on the location of the computer 101 may be: travel information, emergency services (pharmacies, doctors), tourist attractions, hire cars, entertainment (cinema, theatre), consumer goods (department stores, shopping facilities).

[0031] [Figure]Fig. 2 shows a sketch illustrating a scenario for the display of location-dependent bookmarks on a computer, where the location information is ascertained by the computer. The computer 201, in particular in the form of a mobile computer, ascertains its location 202 (location information) on the basis of data from a global positioning system (GPS). On the basis of its location 202, a selection 204 is made from the multiplicity of bookmarks 203 stored on a local basis, and hence the bookmarks 205 relevant to the location of the mobile computer 201 are displayed. Preferably, the bookmarks offered are those whose distance from the location 202 is below a prescribed threshold value. In addition, bookmarks which are independent of the location can be offered (e.g. bookmarks relating to world news).

[0032] The user 209 can select one of these relevant bookmarks 205. A communications interface, in this case a GSM channel 206, is used to transmit the address to a service provider 210, where a query 207 is started. This query 207 produces a result which is again transmitted via the GSM channel 208 to the user 209, in particular to the mobile computer 201.

[0033] [Figure]Fig. 3 shows a sketch illustrating a scenario for the display of location-dependent bookmarks on a computer, where the location information is ascertained by the network. Again, a mobile computer 301 is provided which identifies itself to a service provider 315 using an identifier 302 which is unique to it. The service provider 315 issues a query and ascertains the position of the mobile computer 301 (see blocks 304 and 305). The GSM network, in which it is possible to ascertain the position of a subscriber, is suitable for this purpose. The full duplex radio interface is identified in [figure]Fig. 3 by the communication arrows 303, 308 and 311. The position data 305 ascertained by the service provider 315 is transmitted to the mobile computer 301. There, on the basis of the location information 305, a selection 307 is made from a multiplicity of bookmarks 306 stored on a local basis on the mobile computer 301. This results in a selection of bookmarks 309 which are relevant to the location and which the user 310 can use to retrieve particular information (indicated by the arrow 314). This query 314 is transmitted to the service provider 315 (transmission arrow 311) and is processed there (see block 312). The result 313 of the query 314 or 311 is transmitted back to the mobile computer 301 and is

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displayed to the user 310.

**[0034]** [Figure]Fig. 4 shows a sketch illustrating an extension of the above scenarios by time information. On the basis of [figure]Fig. 2 or [figure]Fig. 3, a selection 402 from a multiplicity of bookmarks 401 is made on the basis of the location information 403, of time information 404 and/or of a timetable 405. The result of the selection is bookmarks 406 matching the selection filter. The selection on the basis of the location information 403 delivers bookmarks matching the location of the mobile computer. In addition, these bookmarks are filtered with regard to their time stamp. By way of example, this may be a filter function of the following type: "The same bookmarks at the same location at the same time".

**[0035]** In addition, time planning can be effected in connection with the location, so that an appointment reminder 405 is issued automatically when paying a visit to the noted place. This appointment reminder 405 relates, in particular, to the query for a particular address in the network group. By way of example: "Every Monday, when visiting the XY area, start query with regional press service."

**[0036]** The filters 403 to 405 can be combined in any combination (and/or) with one another.

**[0037]** [Figure]Fig. 5 shows a sketch illustrating a scenario in which fundamental functions of the computer 501 are removed to the network 502. With a very low power mobile computer 501, it is advantageous to remove the computation- and memory-intensive operations to the network 502, which has plenty of resources.

**[0038]** The mobile computer 501 transmits its identifier 503 to the network 502. There, the position of the mobile computer 501 is firstly ascertained (see block 504), and secondly the bookmarks 505 stored by the network 502 are filtered in the manner described above (filter according to timetable 506, time 507 and position 508). The selection 509 delivers some of the bookmarks 505 back to the mobile computer 501. The user 512 selects a bookmark 511, and a query in the network 502 is started (block 510). The result is transmitted to the mobile computer 501 and hence to the user 512.

**[0039]** In this scenario, it is particularly advantageous for the mobile computer 501, optimized in terms of weight and user friendliness, to remove functions to the network 502. In the network 502, the mobile computer 501 is given an area 513 (domain) created for it which comprises all

its bookmarks 505 and the timetable 506 which is characteristic of it. Preferably, other basic functionalities relating to additional storage of other bookmarks in the network 502 and to editing of these bookmarks are provided in the mobile computer 501.

[0040] [Figure]Fig. 6 shows a sketch illustrating two different methods for creating bookmarks.

[0041] If the user is able to select information 601, that is to say is able to visit its associated address, this is done by explicit selection, in conventional network browsers by clicking on a highlighted destination address. This specific selection 602 causes, in particular, the time 604 at which the information was requested and the location 603, that is to say from where the information was requested, also to be logged. These two items of information – location 603 and time of the query 604 -are stored together 605 with the destination address of the information 601. This is equivalent to automatic storage of bookmarks.

[0042] One alternative is explicit storage of bookmarks 607. In this case, for the bookmark which is to be stored, the location information 608, that is to say the location of the mobile computer, is requested and both the address and the location address are stored together 609 in the bookmarks 610.

[0043] [Figure]Fig. 7 shows a processor unit PRZE. The processor unit PRZE comprises a processor CPU, a memory MEM and an input/output interface IOS which is used in various ways via an interface IFC: a graphics interface is used to visualize an output on a monitor MON and/or to output it on a printer PRT. Input is effected using a mouse MAS or a keyboard TAST. The processor unit PRZE also has a data bus BUS ensuring connection of a memory MEM, the processor CPU and the input/output interface IOS. Additional components can also be connected to the data bus BUS, e.g. an additional memory, data store (hard disk) or scanner.

[0044] The invention has been described in detail with particular reference to preferred embodiments thereof and examples, but it will be understood that variations and modifications can be effected within the spirit and scope of the invention.

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JC19 Rec'd PCT/PTO 04 MAR 2002

Description

**Method and arrangement for displaying location-dependent bookmarks on a computer**

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The invention relates to a method and to an arrangement for displaying location-dependent bookmarks on a computer.

- 10 When operating a computer, for example a personal computer, in a network group, for example the Internet, there are a multiplicity of addresses which can be accessed by the computer in the network group. In this context, a user uses these addresses purposefully, in
- 15 order to satisfy particular information requirements. For better clarity, the addresses are stored as bookmarks in lists, with the lists preferably being able to be sorted according to subject in line with the user's preferences. When "browsers" are used, there are
- 20 directories of bookmarks which can be grouped and sorted by the user on a suitable basis. In addition, there are also programs which merely provide support for managing the multiplicity of bookmarks. If the user has access to a fully functional computer, e.g. a
- 25 personal computer, then it is a simple matter for him to find the bookmarks which he needs quickly on a commercially available screen. He can normally use the large screen and the many advance sorting options to obtain a good overview of the bookmarks, and can
- 30 therefore quickly find the bookmark which he needs in a particular situation.

- The situation is fundamentally different with a portable computer (e.g. with a Personal Digital Assistant = PDA):
- 35 such an appliance normally has just a small display unit (display) which cannot show the same quantity of information as a conventional screen. In particular, the portable computer are usually used on a mobile

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basis, in which case, in particular, there is little time available for bookmarks.

International patent application WO 97/07467 discloses a computer system for identifying local resources in which a client computer sends location information to servers, and this server then zoom or move map information on the basis of the location information, and associated information relating to particular points on the map, for example in the form of hypertext, is adjusted as appropriate in the position shown.

International patent application WO 98/59506 discloses improvements in or relating to the distribution of information which involve establishing a current position for an enquirer via the telephone system, for example using the cell association with a mobile radio cell, and ascertaining from a database an http address for a local information server which then provides the enquirer with local information.

The **object** of the invention is to display bookmarks on a computer, with this display being geared, in particular, to the location of the computer.

This object is achieved on the basis of the features of the independent patent claims. Developments of the invention can be found in the dependent claims.

The object is achieved by specifying a method for displaying location-dependent bookmarks on a computer, in which a location is ascertained for the computer. For this location, corresponding bookmarks are ascertained and are displayed on the computer.

In one development, the bookmarks are used to access data in a network, in particular the Internet. In another development, the computer is a mobile computer.

One refinement consists in the location of the computer being ascertained using a global positioning system (GPS). Alternatively, the location can be determined over a mobile radio network, e.g. GSM, or over a wave LAN.

One particular refinement is that a bookmark corresponding to the location of the computer is determined as a result of the information linked to the bookmark being at a prescribed maximum distance from the location of the computer.

Another refinement is that resources of the computer are removed to a static system. This is suitable as a preference for small mobile appliances whose computation power and computation capacity are greatly restricted. For

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complex data access operations and search queries, it is possible to use the static system, which transmits the results of the storage or search query to the mobile system, in particular via a radio interface.

5

In this context, it should be noted that the (mobile) computer can communicate with the network using, in particular, a radio interface e.g. via DECT or GSM.

10 Another refinement is that bookmarks are stored with location information. This storage can be effected both in the (mobile) computer itself or in the network arrangement. In the case of storage in the network group, the (mobile) computer uses a memory location  
15 which it interrogates preferably via the air interface, or triggers filter functions via the air interface and displays the result, which is in turn transmitted from the network to the computer.

20 In this context, it should be pointed out that the network preferably comprises a group of computers in which the plurality of computers interchange data with one another. In particular, in the case of storage and access to data in the network group, reference can be  
25 made to a (network) computer, by way of representation. An example of a large network group (network) is the Internet.

In one development, time information is additionally  
30 provided which is used to filter the bookmarks. This time information may, in particular, be suitable for automatically storing the last addresses visited and for offering them to the user when required. Using the combination of time information and location  
35 information, the user can be offered the last addresses visited, on the basis of the respective location. This allows fast and very efficient access to

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bookmarks which, on the basis of the respective location, provide the user with information which is significant to him.

- 5 In general, an advantage of the location-related bookmarks is that the user does not need to search for the appropriate addresses on the (mobile) computer, but rather is offered the correct ones quickly. The related access to the data associated with the bookmarks  
10 increases the acceptance when handling the computer to the same extent as the efficiency is increased.

One example is a travel timetable query, which is very highly dependent on the location of the user. A travel  
15 timetable query can thus be made quickly and efficiently from a bus stop, for example. For this bus stop, the departure times and routes can be displayed and hence can inform the user quickly and easily about the time of arrival of the next bus and the rest of the  
20 route.

It should also be noted that the location information can be subdivided into cells of greater or lesser size. Thus, in a GSM radio network, for example, it is  
25 possible to obtain and provide location information accurate to the kilometer. A global positioning system can be used to request and provide location information accurate to several 10m. The accuracy depends on the respective field of application and on the radio  
30 network used.

The bookmarks provided with the time information can be stored automatically or manually. Automatic storage works upon selection of the address concerned, i.e. the  
35 address visited is stored and provided with a time stamp and a location stamp. Accordingly, an address can also be stored explicitly.

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One refinement is that a bookmark is linked to a functionality, e.g. "bus timetable". A content associated with this bookmark is determined dynamically, on the basis of the location and possibly the current time. One option in the "bus timetable" example would be the nearest stop's timetable with the next departure times and arrival times.

The object is also achieved by specifying an arrangement for displaying location-dependent bookmarks, in which a processor unit is provided which is set up such that a location can be ascertained for the computer. For the location, corresponding bookmarks can be ascertained and displayed.

This arrangement is particularly suitable for carrying out the inventive method or one of its developments explained above.

Exemplary embodiments of the invention are explained and illustrated below with reference to the drawing, in which

figure 1 shows a sketch illustrating a scenario for the mobile use of location-dependent services;

figure 2 shows a sketch illustrating a scenario for the display of location-dependent bookmarks on a computer, where the location information is ascertained by the computer;

figure 3 shows a sketch illustrating a scenario for the display of location-dependent bookmarks on a computer, where the location information is ascertained by the network;

figure 4 shows a sketch illustrating a way of extending the above scenarios by time information;

5 figure 5 shows a sketch illustrating a scenario in which fundamental functions of the computer are removed to the network;

figure 6 shows a sketch illustrating two different  
10 methods for creating bookmarks;

figure 7 shows a processor unit (computer).

**Figure 1** shows a sketch illustrating a scenario for the  
15 mobile use of location-dependent services. A mobile computer 101, e.g. a Personal Digital Assistant (PDA), is operated by a user 109 in a mobile radio network, indicated by the radio interfaces 104 and 108. In this case, the mobile computer 101 accesses a network, in  
20 particular a network group 110, for example the Internet. In the "Internet as network group" scenario, it is customary for a subscriber, in this case the mobile computer 101, to access a service provider (Provider) on behalf of the network group 110. In this  
25 case, the service provider 110 responds, in particular, to the query 104 from the mobile computer 101 and transmits an appropriate response 108 back to the mobile computer 101.

30 In figure 1, the location of the computer 101 is ascertained (in block 105, 106) and, on the basis of this location, particular services 107 are offered.

Information which is particularly dependent on the  
35 location of the computer 101 may be: travel information, emergency services (pharmacies, doctors), tourist attractions, hire cars, entertainment (cinema, theatre), consumer goods (department stores, shopping facilities).

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**figure 2** shows a sketch illustrating a scenario for the display of location-dependent bookmarks on a computer, where the location information is ascertained by the computer. The computer 201, in particular in the form of a mobile computer, ascertains its location 202 (location information) on the basis of data from a global positioning system (GPS). On the basis of its location 202, a selection 204 is made from the multiplicity of bookmarks 203 stored on a local basis, and hence the bookmarks 205 relevant to the location of the mobile computer 201 are displayed. Preferably, the bookmarks offered are those whose distance from the location 202 is below a prescribed threshold value. In addition, bookmarks which are independent of the location can be offered (e.g. bookmarks relating to world news).

The user 209 can select one of these relevant bookmarks 205. A communications interface, in this case a GSM channel 206, is used to transmit the address to a service provider 210, where a query 207 is started. This query 207 produces a result which is again transmitted via the GSM channel 208 to the user 209, in particular to the mobile computer 201.

25

**Figure 3** shows a sketch illustrating a scenario for the display of location-dependent bookmarks on a computer, where the location information is ascertained by the network. Again, a mobile computer 301 is provided which identifies itself to a service provider 315 using an identifier 302 which is unique to it. The service provider 315 issues a query and ascertains the position of the mobile computer 301 (see blocks 304 and 305). The GSM network, in which it is possible to ascertain the position of a subscriber, is suitable for this purpose. The full duplex radio interface is identified in figure 3 by the communication arrows 303, 308 and 311. The position data 305 ascertained by the service

provider 315 is transmitted to the mobile computer 301. There, on the basis of the location information 305, a selection 307 is made from a multiplicity of bookmarks 306 stored on a local basis on the mobile computer 301.

5 This results in a selection of bookmarks 309 which are relevant to the location and which the user 310 can use to retrieve particular information (indicated by the arrow 314). This query 314 is transmitted to the service provider 315 (transmission arrow 311) and is

10 processed there (see block 312). The result 313 of the query 314 or 311 is transmitted back to the mobile computer 301 and is displayed to the user 310.

**Figure 4** shows a sketch illustrating an extension of

15 the above scenarios by time information. On the basis of figure 2 or figure 3, a selection 402 from a multiplicity of bookmarks 401 is made on the basis of the location information 403, of time information 404 and/or of a timetable 405. The result of the selection

20 is bookmarks 406 matching the selection filter. The selection on the basis of the location information 403 delivers bookmarks matching the location of the mobile computer. In addition, these bookmarks are filtered with regard to their time stamp. By way of example,

25 this may be a filter function of the following type: "The same bookmarks at the same location at the same time".

In addition, time planning can be effected in

30 connection with the location, so that an appointment reminder 405 is issued automatically when paying a visit to the noted place. This appointment reminder 405 relates, in particular, to the query for a particular address in the network group. By way of example: "Every

35 Monday, when visiting the XY area, start query with regional press service."

The filters 403 to 405 can be combined in any combination (and/or) with one another.

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**Figure 5** shows a sketch illustrating a scenario in which fundamental functions of the computer 501 are removed to the network 502. With a very low power mobile computer 501, it is advantageous to remove the computation- and memory-intensive operations to the network 502, which has plenty of resources.

The mobile computer 501 transmits its identifier 503 to the network 502. There, the position of the mobile computer 501 is firstly ascertained (see block 504), and secondly the bookmarks 505 stored by the network 502 are filtered in the manner described above (filter according to timetable 506, time 507 and position 508). The selection 509 delivers some of the bookmarks 505 back to the mobile computer 501. The user 512 selects a bookmark 511, and a query in the network 502 is started (block 510). The result is transmitted to the mobile computer 501 and hence to the user 512.

In this scenario, it is particularly advantageous for the mobile computer 501, optimized in terms of weight and user friendliness, to remove functions to the network 502. In the network 502, the mobile computer 501 is given an area 513 (domain) created for it which comprises all its bookmarks 505 and the timetable 506 which is characteristic of it. Preferably, other basic functionalities relating to additional storage of other bookmarks in the network 502 and to editing of these bookmarks are provided in the mobile computer 501.

**Figure 6** shows a sketch illustrating two different methods for creating bookmarks.

If the user is able to select information 601, that is to say is able to visit its associated address, this is done by explicit selection, in conventional network browsers by clicking on a highlighted destination address. This

- specific selection 602 causes, in particular, the time 604 at which the information was requested and the location 603, that is to say from where the information was requested, also to be logged. These two items of
- 5 information - location 603 and time of the query 604 - are stored together 605 with the destination address of the information 601. This is equivalent to automatic storage of bookmarks.
- 10 One alternative is explicit storage of bookmarks 607. In this case, for the bookmark which is to be stored, the location information 608, that is to say the location of the mobile computer, is requested and both the address and the location address are stored
- 15 together 609 in the bookmarks 610.

- Figure 7** shows a processor unit PRZE. The processor unit PRZE comprises a processor CPU, a memory MEM and an input/output interface IOS which is used in various
- 20 ways via an interface IFC: a graphics interface is used to visualize an output on a monitor MON and/or to output it on a printer PRT. Input is effected using a mouse MAS or a keyboard TAST. The processor unit PRZE also has a data bus BUS ensuring connection of a memory
- 25 MEM, the processor CPU and the input/output interface IOS. Additional components can also be connected to the data bus BUS, e.g. an additional memory, data store (hard disk) or scanner.

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Patent Claims

1. A method for displaying location-dependent  
bookmarks on a computer,  
5 a) in which a location is ascertained for the  
computer;  
b) in which bookmarks corresponding to the  
location are ascertained and displayed;  
c) in which bookmarks are stored with location  
10 information.
2. The method as claimed in claim 1,  
in which the bookmarks are used to access data in  
a network.  
15
3. The method as claimed in claim 2,  
in which the network is the Internet.
4. The method as claimed in one of the preceding  
20 claims,  
in which the computer is a mobile computer.
5. The method as claimed in one of the preceding  
claims,  
25 in which the location of the computer is  
ascertained using a GPS sensor.
6. The method as claimed in one of the preceding  
claims,  
30 in which a bookmark corresponding to the location  
is determined by a prescribed distance between the  
information linked to the bookmark and the  
location.
- 35 7. The method as claimed in one of the preceding  
claims,

in which resources of the computer are moved to a static system.

8. The method as claimed in one of the preceding claims, in which time information is additionally provided

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which is used to filter the bookmarks.

9. The method as claimed in claim 8,  
in which the bookmarks are stored automatically or  
manually.
10. An arrangement for displaying location-dependent  
bookmarks, in which a processor unit is provided  
which is set up such that
  - a) a location can be ascertained for the computer;
  - b) in which bookmarks corresponding to the  
location can be ascertained and displayed.

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Abstract

**Method and arrangement for displaying location-dependent bookmarks on a computer**

The invention specifies a method for displaying location-dependent bookmarks on a computer, in which a location is ascertained for the computer. For this location, corresponding bookmarks are ascertained and are displayed on the computer.

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(12) NACH DEM VERTRAG ÜBER DIE INTERNATIONALE ZUSAMMENARBEIT AUF DEM GEBIET DES  
PATENTWESENS (PCT) VERÖFFENTLICHTE INTERNATIONALE ANMELDUNG

(19) Weltorganisation für geistiges Eigentum  
Internationales Büro



(43) Internationales Veröffentlichungsdatum  
15. März 2001 (15.03.2001)

PCT

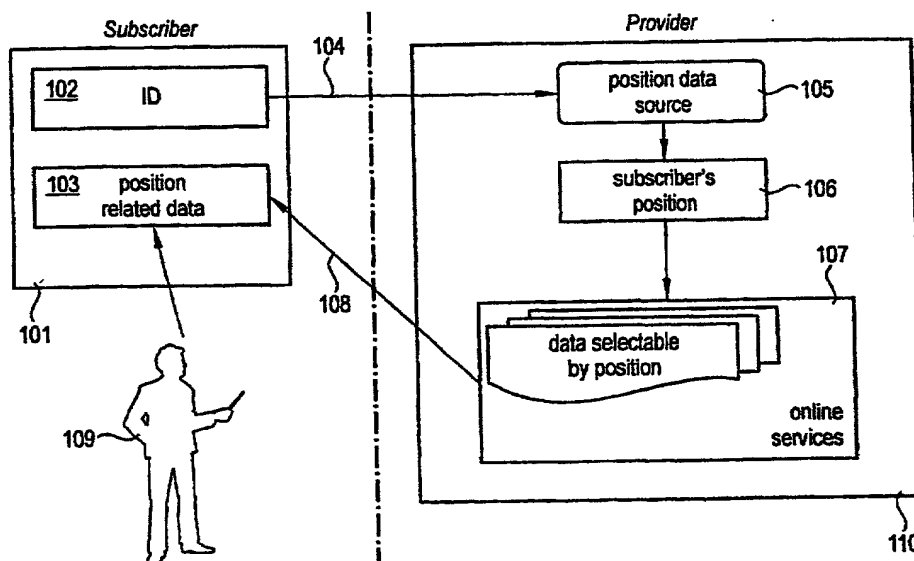
(10) Internationale Veröffentlichungsnummer  
**WO 01/18490 A1**

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- (21) Internationales Aktenzeichen: PCT/DE00/03007 (72) Erfinder; und (75) Erfinder/Anmelder (nur für US): SCHWEITZER, Jean [LU/DE]; Nussbaumstrasse 55, 66121 Saarbrücken (DE). MINENKO, Vladimir [RU/DE]; Lortzingstrasse 2, 66125 Saarbrücken (DE).
- (22) Internationales Anmeldedatum: 1. September 2000 (01.09.2000)
- (25) Einreichungssprache: Deutsch (74) Gemeinsamer Vertreter: SIEMENS AKTIENGESELLSCHAFT; Postfach 22 16 34, 80506 München (DE).
- (26) Veröffentlichungssprache: Deutsch
- (30) Angaben zur Priorität: 199 42 173.0 3. September 1999 (03.09.1999) DE (81) Bestimmungsstaaten (national): CN, US.

[Fortsetzung auf der nächsten Seite]

(54) Title: METHOD AND SYSTEM FOR DISPLAYING SITE-SPECIFIC BOOKMARKS ON A COMPUTER

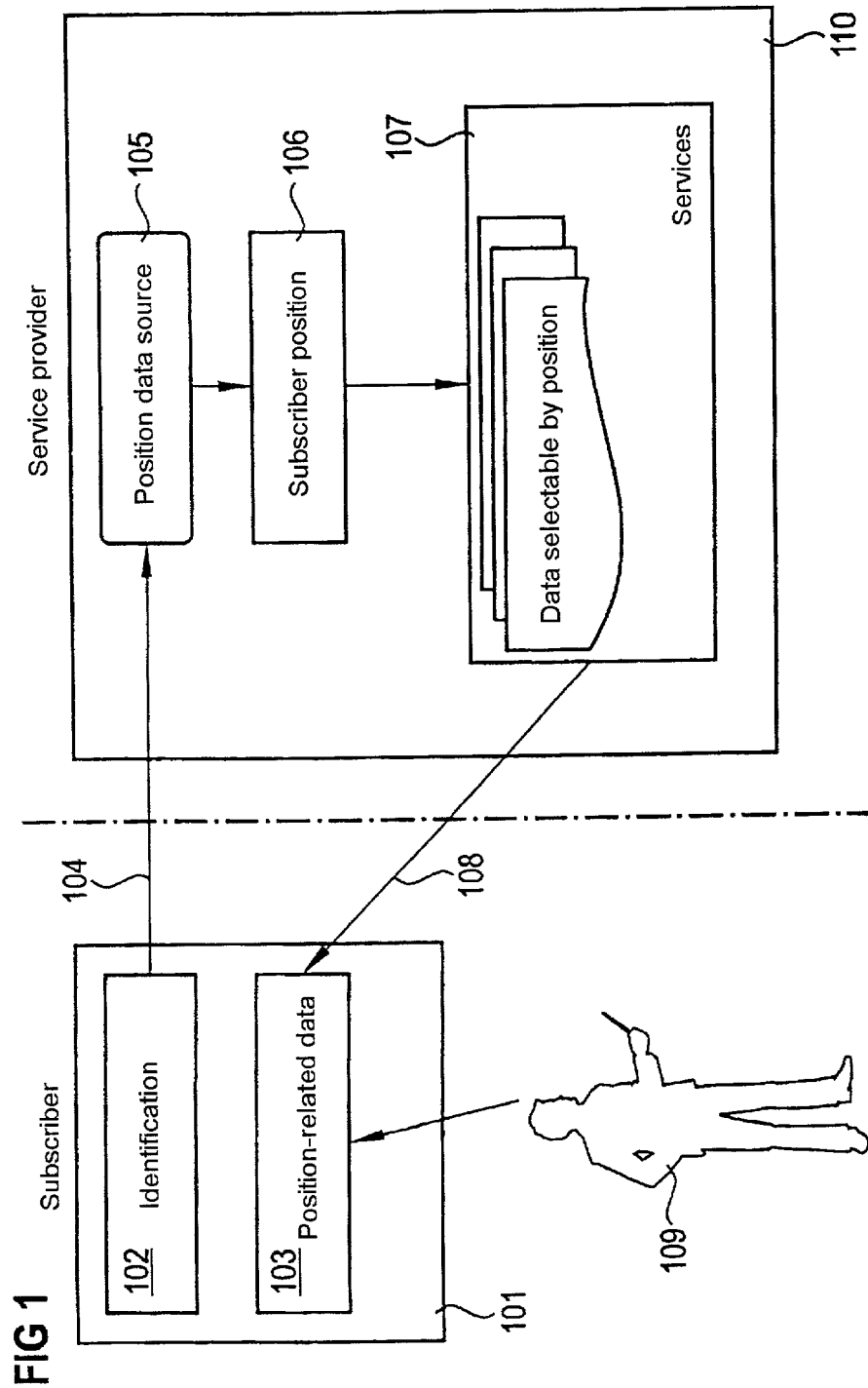
(54) Bezeichnung: VERFAHREN UND ANORDNUNG ZUR DARSTELLUNG ORTSABHÄNGIGER LESEZEICHEN AUF EINEM RECHNER



(57) Abstract: The invention relates to a method for displaying regiospecific bookmarks on a computer. According to the inventive method, a location of the computer is determined and bookmarks corresponding to said location are determined and displayed on the computer.

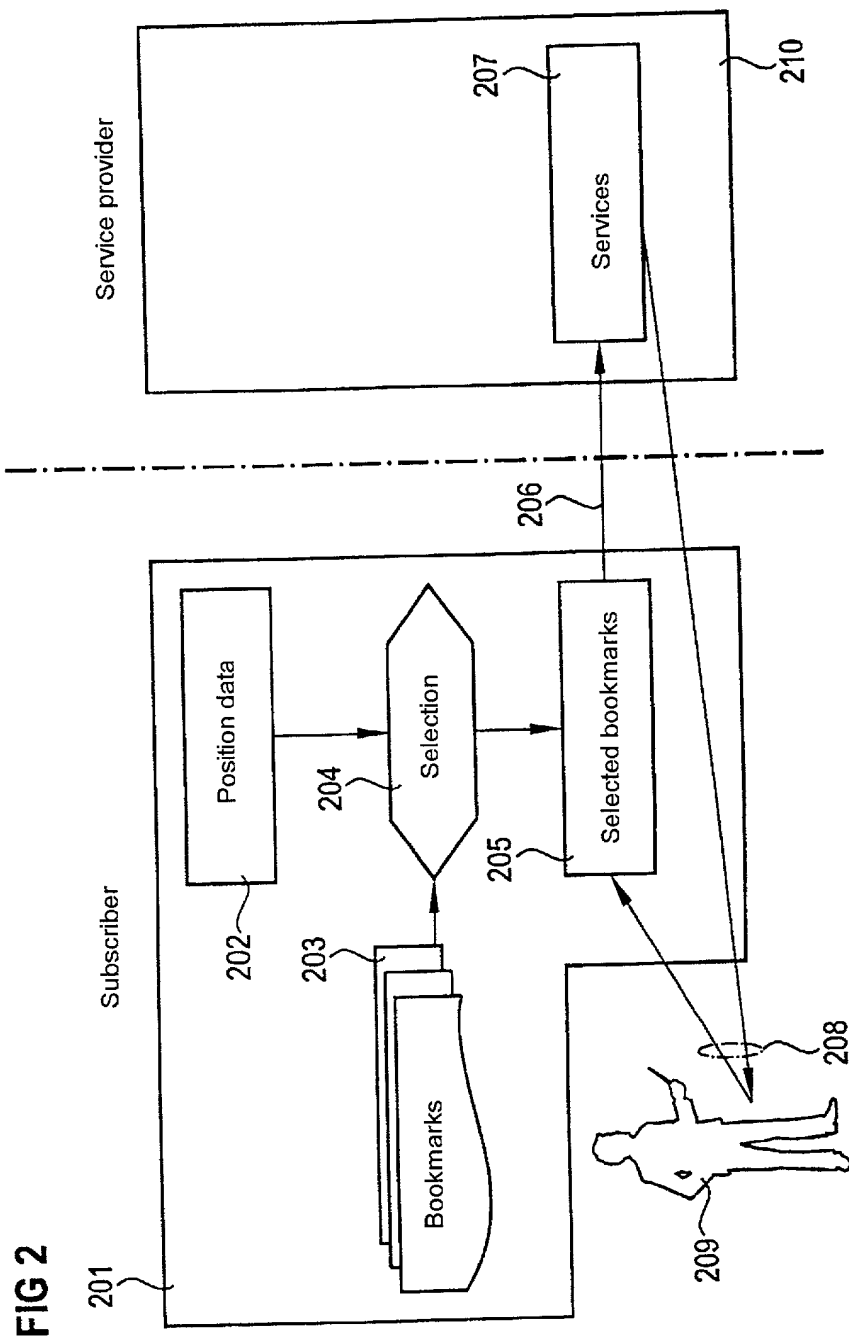
(57) Zusammenfassung: Es wird ein Verfahren zur Darstellung ortsabhängiger Lesezeichen auf einem Rechner angegeben, bei dem ein Aufenthaltsort des Rechners ermittelt wird. Zu diesem Aufenthaltsort werden korrespondierende Lesezeichen ermittelt und auf dem Rechner dargestellt.

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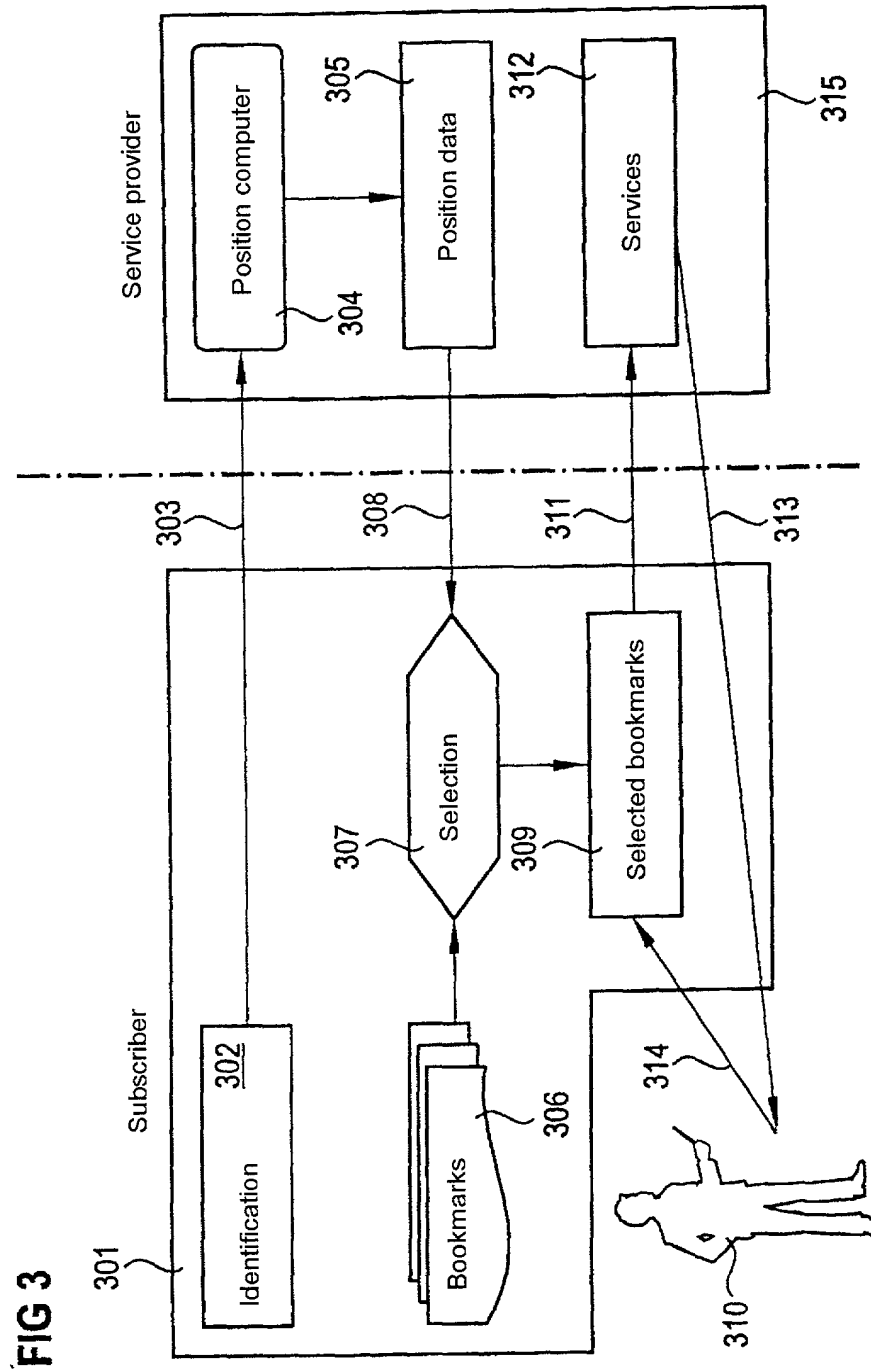
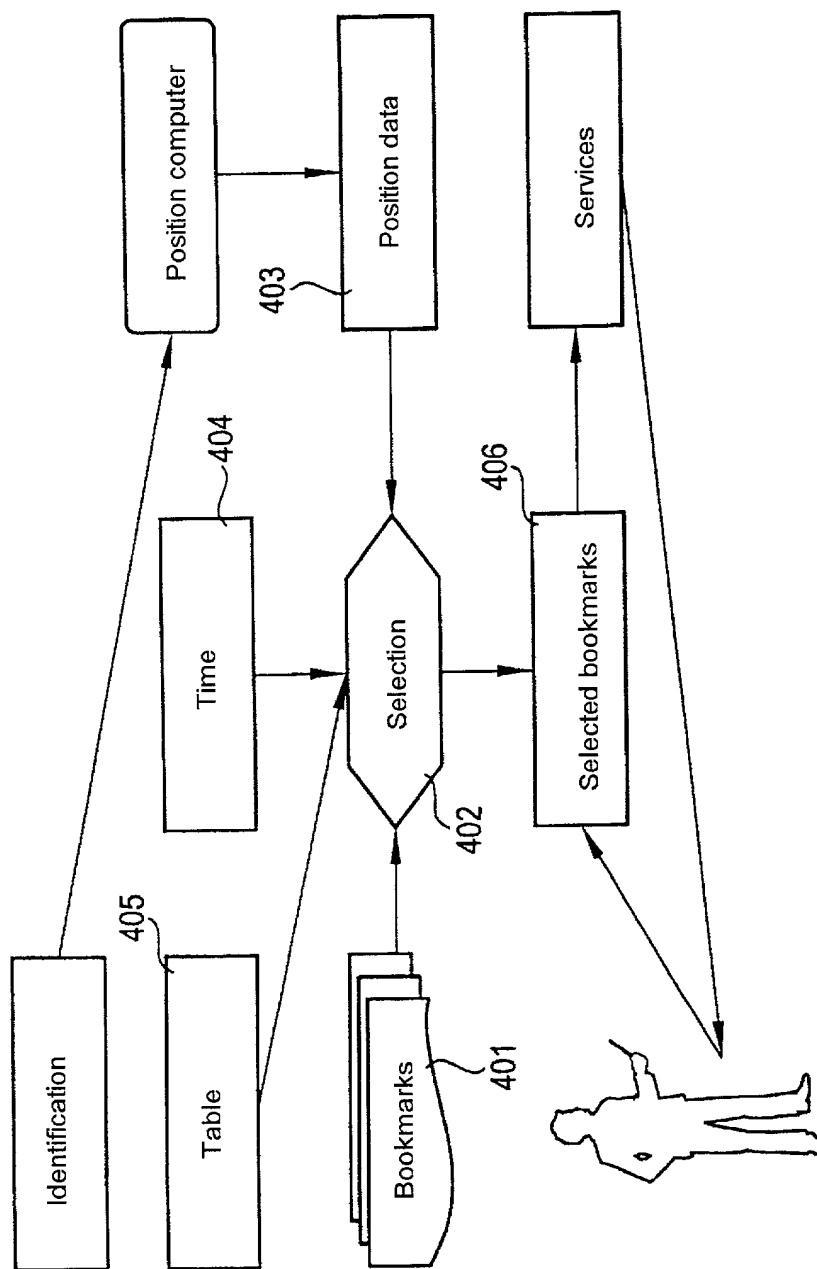


FIG 4



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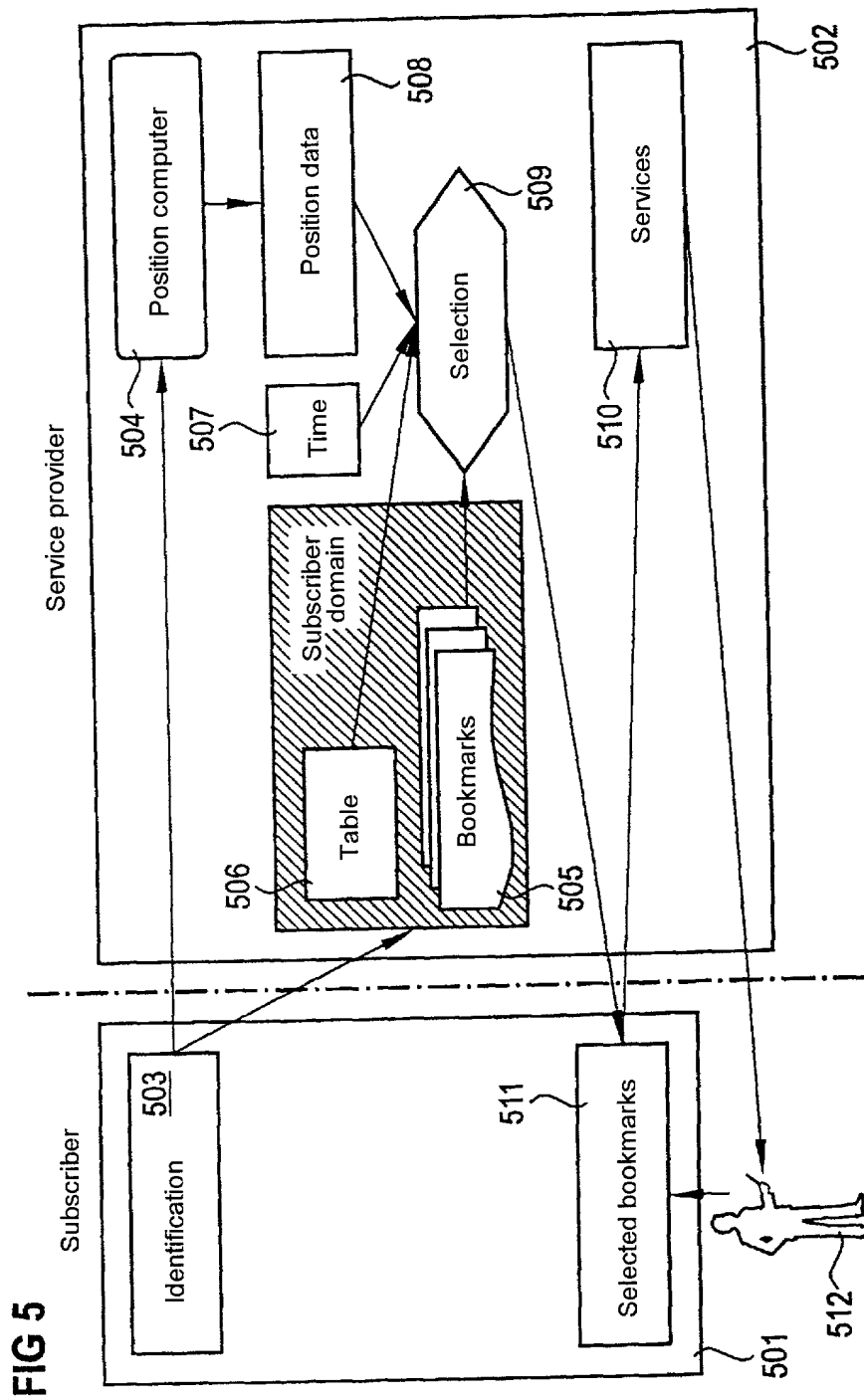


FIG 6

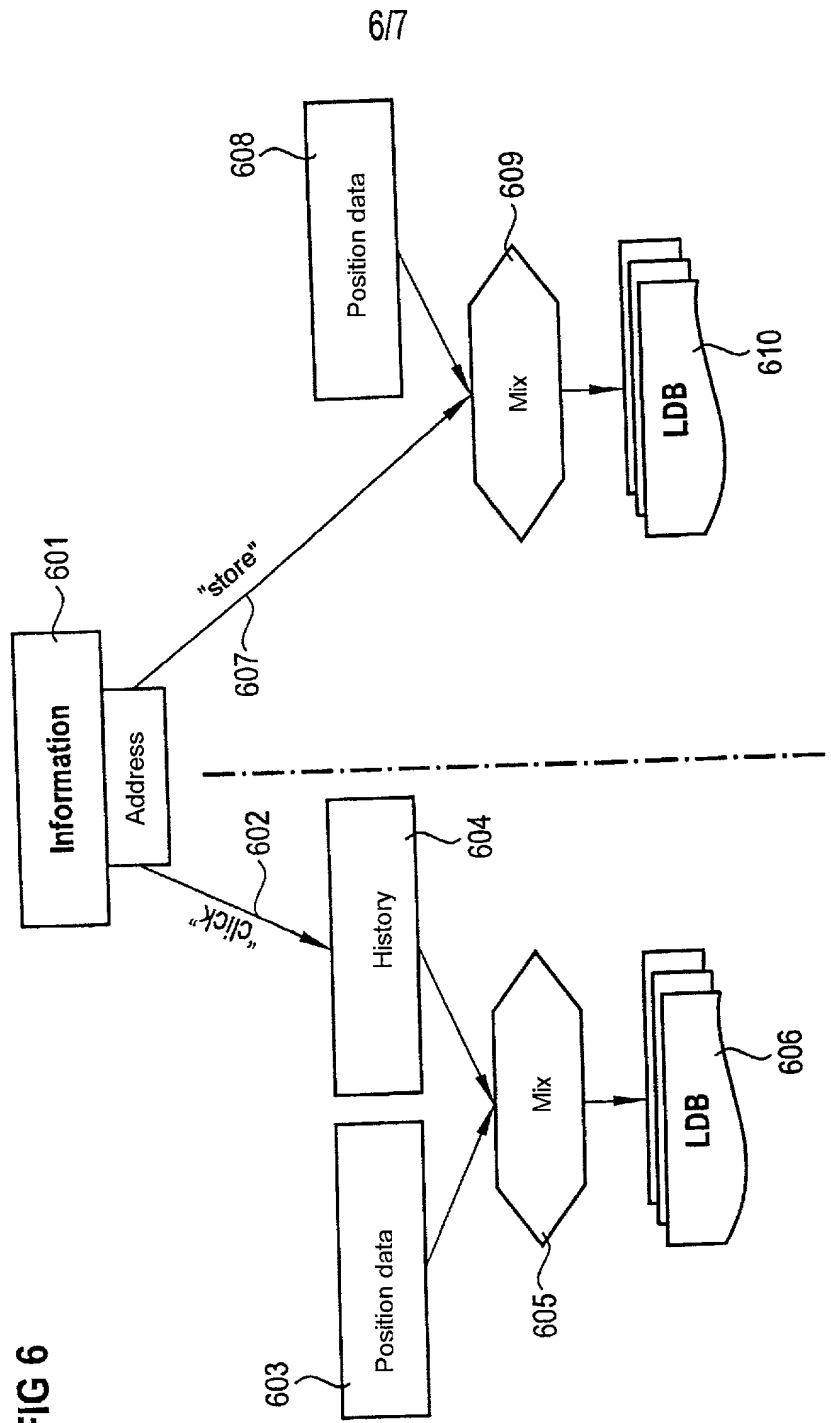
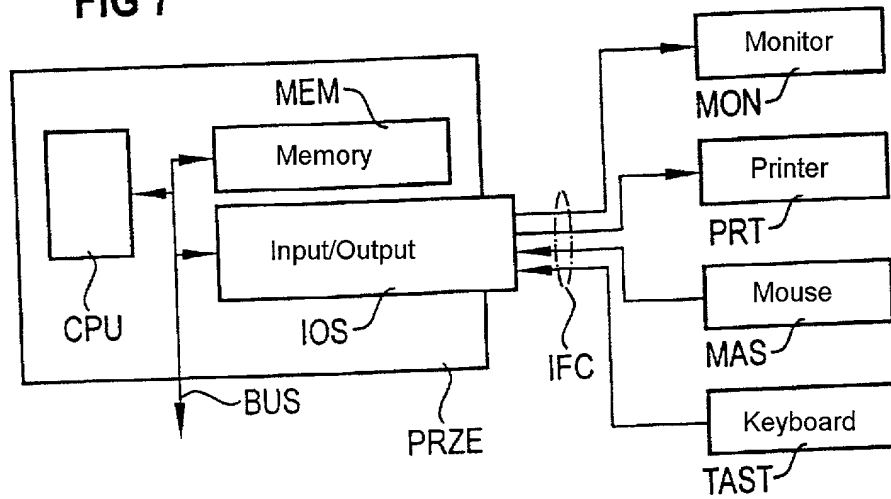


FIG 7



# Declaration and Power of Attorney For Patent Application

## *Erklärung Für Patentanmeldungen Mit Vollmacht*

### German Language Declaration

Als nachstehend benannter Erfinder erkläre ich hiermit an Eides Statt:

As a below named inventor, I hereby declare that:

dass mein Wohnsitz, meine Postanschrift, und meine Staatsangehörigkeit den im Nachstehenden nach meinem Namen aufgeführten Angaben entsprechen,

My residence, post office address and citizenship are as stated below next to my name,

dass ich, nach bestem Wissen der ursprüngliche, erste und alleinige Erfinder (falls nachstehend nur ein Name angegeben ist) oder ein ursprünglicher, erster und Miterfinder (falls nachstehend mehrere Namen aufgeführt sind) des Gegenstandes bin, für den dieser Antrag gestellt wird und für den ein Patent beantragt wird für die Erfindung mit dem Titel:

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

#### Verfahren und Anordnung zur Darstellung ortsabhängiger Lesezeichen auf einem Rechner

#### Method and system for displaying site-specific bookmarks on a computer

deren Beschreibung

the specification of which

(zutreffendes ankreuzen)

(check one)

☐ hier beigefügt ist.

☐ is attached hereto.

☒ am 01.09.2000 als

☒ was filed on 01.09.2000 as

PCT internationale Anmeldung

PCT international application

PCT Anmeldungsnummer PCT/DE00/03007

PCT Application No. PCT/DE00/03007

eingereicht wurde und am \_\_\_\_\_

and was amended on \_\_\_\_\_ (if applicable)

abgeändert wurde (falls tatsächlich abgeändert).

Ich bestätige hiermit, dass ich den Inhalt der obigen Patentanmeldung einschliesslich der Ansprüche durchgesehen und verstanden habe, die eventuell durch einen Zusatzantrag wie oben erwähnt abgeändert wurde.

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims as amended by any amendment referred to above.

Ich erkenne meine Pflicht zur Offenbarung irgendwelcher Informationen, die für die Prüfung der vorliegenden Anmeldung in Einklang mit Absatz 37, Bundesgesetzbuch, Paragraph 1.56(a) von Wichtigkeit sind, an.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, §1.56(a).

Ich beanspruche hiermit ausländische Prioritätsvorteile gemäss Abschnitt 35 der Zivilprozessordnung der Vereinigten Staaten, Paragraph 119 aller unten angegebenen Auslandsanmeldungen für ein Patent oder eine Erfindersurkunde, und habe auch alle Auslandsanmeldungen für ein Patent oder eine Erfindersurkunde nachstehend gekennzeichnet, die ein Anmeldedatum haben, das vor dem Anmeldedatum der Anmeldung liegt, für die Priorität beansprucht wird.

I hereby claim foreign priority benefits under Title 35, United States Code, §119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

# German Language Declaration

Prior foreign applications  
Priorität beansprucht

Priority Claimed

19942173.0

DE

03.09.1999

☒

☐

(Number)  
(Nummer)

(Country)  
(Land)

(Day Month Year Filed)  
(Tag Monat Jahr eingereicht)

Yes  
Ja

No  
Nein

(Number)  
(Nummer)

(Country)  
(Land)

(Day Month Year Filed)  
(Tag Monat Jahr eingereicht)

☐

☐

Yes  
Ja

No  
Nein

(Number)  
(Nummer)

(Country)  
(Land)

(Day Month Year Filed)  
(Tag Monat Jahr eingereicht)

☐

☐

Yes  
Ja

No  
Nein

Ich beanspruche hiermit gemäss Absatz 35 der Zivilprozessordnung der Vereinigten Staaten, Paragraph 120, den Vorzug aller unten aufgeführten Anmeldungen und falls der Gegenstand aus jedem Anspruch dieser Anmeldung nicht in einer früheren amerikanischen Patentanmeldung laut dem ersten Paragraphen des Absatzes 35 der Zivilprozessordnung der Vereinigten Staaten, Paragraph 122 offenbart ist, erkenne ich gemäss Absatz 37, Bundesgesetzbuch, Paragraph 1.56(a) meine Pflicht zur Offenbarung von Informationen an, die zwischen dem Anmeldedatum der früheren Anmeldung und dem nationalen oder PCT internationalen Anmeldedatum dieser Anmeldung bekannt geworden sind.

I hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, §122, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, §1.56(a) which occurred between the filing date of the prior application and the national or PCT international filing date of this application.

PCT/DE00/03007

(Application Serial No.)  
(Anmeldeseriennummer)

01.09.2000

(Filing Date D, M, Y)  
(Anmeldedatum T, M, J)

anhängig

(Status)  
(patentiert, anhängig,  
aufgegeben)

pending

(Status)  
(patented, pending,  
abandoned)

(Application Serial No.)  
(Anmeldeseriennummer)

(Filing Date D,M,Y)  
(Anmeldedatum T, M; J)

(Status)  
(patentiert, anhängig,  
aufgeben)

(Status)  
(patented, pending,  
abandoned)

Ich erkläre hiermit, dass alle von mir in der vorliegenden Erklärung gemachten Angaben nach meinem besten Wissen und Gewissen der vollen Wahrheit entsprechen, und dass ich diese eidesstattliche Erklärung in Kenntnis dessen abgebe, dass wissentlich und vorsätzlich falsche Angaben gemäss Paragraph 1001, Absatz 18 der Zivilprozessordnung der Vereinigten Staaten von Amerika mit Geldstrafe belegt und/oder Gefängnis bestraft werden koennen, und dass derartig wissentlich und vorsätzlich falsche Angaben die Gültigkeit der vorliegenden Patentanmeldung oder eines darauf erteilten Patentes gefährden können.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.



# German Language Declaration

VERTRETUNGSVOLLMACHT: Als benannter Erfinder beauftrage ich hiermit den nachstehend benannten Patentanwalt (oder die nachstehend benannten Patentanwälte) und/oder Patent-Agenten mit der Verfolgung der vorliegenden Patentanmeldung sowie mit der Abwicklung aller damit verbundenen Geschäfte vor dem Patent- und Warenzeichenamt: (Name und Registrationsnummer anführen)

POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith. (list name and registration number)

And I hereby appoint

Customer No. 21171

Telefongespräche bitte richten an:  
(Name und Telefonnummer)

Direct Telephone Calls to: (name and telephone number)

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Send Correspondence to:

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700 Eleventh Street NW, Suite 500 20001 Washington, DC  
Telephone: (001) 202 434 1500 and Facsimile (001) 202 434 1501

or

Customer No. 21171

Voller Name des einzigen oder ursprünglichen Erfinders: <b>Dr. Vladimir Minenko</b>		Full name of sole or first inventor: <b>Dr. Vladimir Minenko</b>	
Unterschrift des Erfinders <i>[Signature]</i>	Datum <b>07.02.02</b>	Inventor's signature	Date
Wohnsitz <b>Muenchen, DEUTSCHLAND</b>		Residence <b>Muenchen, GERMANY DEX</b>	
Staatsangehörigkeit <b>RU</b>		Citizenship <b>RU</b>	
Postanschrift <b>Werner-Egk-Bogen 27</b>		Post Office Address <b>Werner-Egk-Bogen 27</b>	
<b>80939 Muenchen</b>		<b>80939 Muenchen</b>	
Voller Name des zweiten Miterfinders (falls zutreffend): <b>Dr. JEAN SCHWEITZER</b>		Full name of second joint inventor, if any: <b>Dr. JEAN SCHWEITZER</b>	
Unterschrift des Erfinders <i>[Signature]</i>	Datum <b>30.01.02</b>	Second Inventor's signature	Date
Wohnsitz <b>SAARBRUECKEN, DEUTSCHLAND</b>		Residence <b>SAARBRUECKEN, GERMANY DEX</b>	
Staatsangehörigkeit <b>LU</b>		Citizenship <b>LU</b>	
Postanschrift <b>NUSSBAUMSTR. 55</b>		Post Office Address <b>NUSSBAUMSTR. 55</b>	
<b>66121 SAARBRUECKEN</b>		<b>66121 SAARBRUECKEN</b>	

(Bitte entsprechende Informationen und Unterschriften im Falle von dritten und weiteren Miterfindern angeben).

(Supply similar information and signature for third and subsequent joint inventors).

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